**IN THE CLAIMS**

1. (currently amended) Apparatus for mixing of a chemical medium in gaseous or liquid state with a pulp suspension, comprising a housing having a wall ~~(2)~~ that defines a mixing chamber ~~(4)~~, a first feeder ~~(6)~~ for feeding the pulp suspension to the mixing chamber, a rotor shaft ~~(8, 104, 204, 300, 406, 502)~~, that extends in the mixing chamber, a drive device for rotation of the rotor shaft, a rotor body ~~(10, 200, 407, 504)~~, that is connected to the rotor shaft and arranged to supply kinetic energy to the pulp suspension ~~flow~~, during rotation of the rotor shaft by the rotation of the drive device, such that turbulence is produced in a turbulent flow zone ~~(12)~~ in the mixing chamber, a second feeder ~~(13)~~ for feeding of the chemical medium to the mixing chamber, ~~and~~ an outlet for discharging the mixture of chemical medium and pulp suspension from the mixing chamber, ~~characterised in that~~ and a flow-restraining disk with one or more flow passages arranged in the outlet from the mixing chamber to temporarily increase the flow velocity of the pulp suspension when the pulp suspension passes the flow-restraining disk, the second feeder ~~(13) comprises~~comprising at least one stationary feeding pipe ~~(14, 102),~~ that extends from the wall ~~(2)~~ of the housing into the mixing chamber ~~(4) and that has~~, including an outlet ~~(16, 100)~~ for the chemical medium in or in close vicinity to said turbulent flow zone ~~(12).~~, and the rotor body comprising a number of rotor pins which extend from the rotor shaft on the upstream side of the flow-restraining disk.

2. (currently amended) Apparatus according to claim 1, ~~characterised in that~~wherein the feeding pipe ~~(14)~~ extends substantially radially to the rotor shaft ~~(8, 204, 300, 406, 502)~~ in the mixing chamber ~~(4)~~.

3. (currently amended) Apparatus according to claim 1, ~~characterised in that~~wherein the feeding pipe ~~(14, 102)~~ extends

substantially parallel to the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~ in the mixing chamber ~~(4)~~.

4. (currently amended) Apparatus according to claim 3, ~~characterised in that~~wherein the rotor shaft ~~(104, 204, 300, 406, 502)~~ extends through the feeding pipe ~~(102)~~, whereby an annular outlet ~~(100)~~ for the chemical medium is defined by the rotor shaft and the feeding pipe.

5. (currently amended) Apparatus according to claim 4, ~~characterised in that~~wherein the feeding pipe ~~(102)~~ extends coaxially or eccentrically to the rotor shaft ~~(104, 204, 300, 406, 502)~~.

6. (canceled)

7. (canceled)

8. (canceled)

9. (currently amended) Apparatus according to claim 1, ~~characterised in that~~wherein the second feeder ~~(13)~~ comprises a number of stationary feeding pipes ~~(14)~~.

10. (currently amended) Apparatus according to claim 9, ~~characterised in that~~wherein the feeding pipes ~~(14)~~ extend substantially radially to the rotor shaft ~~(8, 204, 300, 406, 502)~~.

11. (currently amended) Apparatus according to claim 9, ~~characterised in that~~wherein the feeding pipes ~~(14)~~ extend substantially parallel to the rotor shaft ~~(8, 204, 300, 406, 502)~~.

12. (currently amended) Apparatus according to claim 10 or 11, ~~characterised in that~~wherein the outlets ~~(16)~~ of the feeding pipes ~~(14)~~ are situated symmetrically or asymmetrically around the rotor shaft ~~(8, 204, 300, 406, 502)~~.

13. (canceled)

14. (canceled)

15. (canceled)

16. (currently amended) Apparatus according to claim 12, ~~characterised in that~~wherein the outlets ~~(16)~~ of each of the feeding pipes ~~(14)~~ are of a non-rotational symmetrical design and at least one of the outlets ~~(16)~~ is provided with an orientation of rotation (V1) in relation to the ~~centre (8)~~center of the rotor shaft that differs from the corresponding orientations of rotation (V2) of the other outlets.

17. (canceled)

18. (canceled)

19. (currently amended) Apparatus according to claim 1~~18~~, ~~characterised in that~~wherein each rotor pin ~~(202, 408, 506, 506´)~~ is curved forward from the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~ or backward relatively to the rotational direction of the rotor body.

20. (currently amended) Apparatus according to claim 1~~18~~ or 19, ~~characterised in that~~wherein each rotor pin ~~(202, 408, 506, 506´)~~ has a width (b), as seen in the rotational direction of the rotor body ~~(10, 200, 407, 504)~~, that increases along at least a part of the rotor body in a direction against the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~.

21. (canceled)

22. (canceled)

23. (canceled)

24. (currently amended) Apparatus according to ~~any of claims 1-3~~claim 1 or ~~6~~9, ~~characterised in that~~wherein the rotor shaft ~~(8, 204, 300, 406, 502)~~ is provided with an axially flow generating element ~~(302)~~.

25. (currently amended) Apparatus according to claim 24, ~~characterised in that~~wherein the axial flow-generating element ~~(302)~~ comprises a number of blades ~~(304)~~, which are obliquely attached relative~~ly~~ to the rotor shaft ~~(8, 204, 300, 406, 502)~~.

26. (currently amended) Apparatus according to claim 24, ~~characterised in that~~wherein the axial flow-generating element

~~(302)~~ comprises a screw thread or a band thread ~~(306)~~, which extends along the rotor shaft ~~(8, 204, 300, 406, 502)~~.

27. (canceled)

28. (canceled)

29. (canceled)

30. (currently amended) Apparatus according to claim 1~~29~~, ~~characterised in that~~wherein each flow passage ~~(402, 510)~~ extends obliquely from the up-stream side of the disk against the ~~centre~~ center shaft ~~(C)~~ of the disk.

31. (canceled)

32. (canceled)

33. (currently amended) Apparatus according to ~~any of claims 29-32~~claim 1 or 30, ~~characterised in that~~wherein the disk ~~(400, 500)~~ is circular or coaxial to the rotor shaft (8, 104, 204, 300, 406, 502).

34. (currently amended) Apparatus according to ~~any of~~ claim 1 or 30~~claims 29-33~~, ~~characterised in that~~wherein the disk ~~(400, 500)~~ is stationary arranged in the housing.

35. (currently amended) Apparatus according to claim 34, ~~characterised in that~~wherein the disk ~~(400, 500)~~ comprises a number of concentric~~ally~~ rings ~~(404, 508),~~ which are coaxial with the rotor shaft ~~(8, 104, 204, 300, 406, 502),~~ and at least one radial bar ~~(410),~~ that fixates the rings relative~~ly~~ to each other and that are attached in the wall of the housing, whereby the flow passages ~~(402, 510)~~ are defined by the rings and the bar.

36. (currently amended) Apparatus according to ~~any of claims 29-33~~claim 1 or 9, ~~characterised in that~~wherein the disk ~~(400, 500)~~ is integrated with the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~.

37. (currently amended) Apparatus according to claim 36, ~~characterised in that~~wherein the rotor body ~~(10, 200, 407, 504)~~ comprises a number of pins ~~(202, 408, 506, 506')~~, that extend~~s~~

from the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~, whereby the disk ~~(400, 500)~~ is fixed to the pins on the down-stream side of the rotor body.

38. (currently amended) Apparatus according to claim 37, ~~characterised in that~~wherein the rotor body ~~(10, 200, 407, 504)~~ comprises an additional number of pins ~~(202, 408, 506, 506´)~~, that extend~~s~~ from the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~ on the down-stream side of the disk, whereby the disk ~~(400, 500)~~ is also fixed to said additional pins (202, 408, 506, 506´).

39. (currently amended) Apparatus according to claim 37 ~~or 38~~, ~~characterised in that~~wherein the disk ~~(400, 500)~~ comprises a number of concentric~~ally~~ rings ~~(404, 508),~~ which are coaxial with the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~, and the rotor pins ~~(202, 408, 506, 506´)~~ fixate~~s~~ the rings in relation to each other, whereby flow passages ~~(402, 510)~~ are defined by the pins and the rings.

40. (currently amended) Apparatus according to ~~any of claims 36 39~~claim 36, ~~characterised in that~~wherein spacer elements ~~(511)~~ are arranged between the disk ~~(400, 500)~~ and the rotor pins ~~(202, 408, 506, 506´)~~.